

### AMENDMENTS TO THE CLAIMS

Please cancel claims 1, 107, and 142-172 without prejudice, and amend the claims as indicated below. Add new claims 173-175.

1-100. (Canceled)

101. **(Currently Amended)** A composition comprising an ex vivo expanded population of cytotoxic lymphocytes ~~identified as~~ having the ability to kill tumor-associated vasculature cells, and a pharmaceutically acceptable carrier, wherein said population is produced by expanding lymphocytes in a closed system with agitation, and said population has a cytotoxic activity characterized in that specific lysis of cancer cells significantly exceeds that of a population of cells produced by growing the same lymphocytes in a standard flask, as measured in a <sup>51</sup>Cr-release assay wherein the population is added to said cancer cells at a ratio of 10:1.
102. (Previously Presented) The composition of claim 101, wherein at least a subclass of the ex vivo expanded population of cytotoxic lymphocytes selectively kill tumor-associated vascular endothelial cells as compared to physiologically normal vascular endothelia.
103. (Previously Presented) The composition of claim 102, wherein the selectivity is at least two-fold.
104. (Previously Presented) The composition of claim 102, wherein the ex vivo expanded population of cytotoxic lymphocytes exhibit lower toxicity to freshly confluent plated human umbilical cord endothelial cells in presence of Hsp47 than to freshly confluent plated human umbilical cord endothelial cells in the absence of Hsp47.
105. (Previously Presented) The composition of claim 102, wherein the ex vivo expanded population of cytotoxic lymphocytes are less toxic to 5 day post-confluent plated human umbilical vein endothelial cells than to freshly confluent or non-confluent human umbilical vein endothelial cells.
106. (Previously Presented) The composition of claim 105, wherein the ex vivo expanded population of cytotoxic lymphocytes are at least about two-fold less toxic to freshly-

- confluent human umbilical vein endothelial cells in the absence of Hsp47 than in the presence of an optimal amount of Hsp47.
107. **(Canceled)** The composition of claim 101, wherein the cytotoxic lymphocytes are expanded in a closed system.
108. **(Currently Amended)** The composition of claim 101 ~~107~~, wherein the cytotoxic lymphocytes are expanded in a bioreactor.
109. (Previously Presented) The composition of claim 101, wherein the ex vivo expanded population of cytotoxic lymphocytes are immortalized.
110. (Previously Presented) The composition of claim 101, wherein the ex vivo expanded cytotoxic lymphocytes comprise cells expressing both CD3 and CD56.
111. (Previously Presented) The composition of claim 101, further comprising a chemotherapeutic compound.
112. (Previously Presented) The composition of claim 101, further comprising an agent which binds to the cells non-covalently.
113. (Previously Presented) The composition of claim 112, further comprising one or more of a toxin, a radioactive molecule, an immune modulator, a detectably labeled molecule and a tracer attached to the agent.
114. (Previously Presented) The composition of claim 112 further comprising a toxin attached to the agent.
115. (Previously Presented) The composition of claim 112, further comprising a radioactive molecule attached to the agent.
116. (Previously Presented) The composition of claim 112, further comprising an immune modulator attached to the agent.
117. (Previously Presented) The composition of claim 112, further comprising a tracer attached to the agent.
118. (Previously Presented) The composition of claim 101, further comprising an antibody.

119. (Previously Presented) The composition of claim 118, wherein the antibody is bound to a cell of the population of ex vivo expanded cytotoxic lymphocytes.
120. (Previously Presented) The composition of claim 118, wherein the antibody is one of a mono-, bi- or multi-valent antibody.
121. (Previously Presented) The composition of claim 118, further comprising one or more of a toxin, a radioactive molecule, an immune modulator, a detectably labeled molecule and a tracer attached to the antibody.
122. (Previously Presented) The composition of claim 101, wherein the ex vivo expanded cytotoxic lymphocytes express one or more members of a cell surface receptor family, other than a T-cell Receptor, which further binds one or more of Hsp47, HLA-A, HLA-G, IL-12 receptor, and a polypeptide consisting of the amino acid sequence AVLSAEQRL (SEQ ID NO: 1)
123. (Previously Presented) The composition of claim 122, wherein the member of a cell surface receptor family binds one of Hsp47 and a polypeptide consisting of the amino acid sequence AVLSAEQRL (SEQ ID NO: 1).
124. (Previously Presented) The composition of claim 122, wherein the member of a cell surface receptor family binds HLA.
125. **(Currently Amended)** The composition of claim 122, wherein the member of a cell surface receptor family ~~recognizes~~ binds IL-12 receptor.
126. **(Currently Amended)** The composition of claim 122, wherein the member of the cell-surface receptor family is a killer inhibitory receptor.
127. **(Currently Amended)** The composition of claim 122, wherein the member of the cell-surface receptor family is an inhibitory receptor.
128. (Previously Presented) The composition of claim 101, further comprising dendritic cells, T helper cells, T<sub>CTL</sub> cells, NK cells or tumor targets or extracts thereof.
129. (Previously Presented) The composition of claim 128, comprising dendritic cells pulsed with tumor or endothelial antigens.
130. (Previously Presented) The composition of claim 128, comprising unpulsed dendritic cells.

131. (Previously Presented) The composition of claim 101, wherein the ex vivo expanded cytotoxic lymphocytes are not lethally irradiated.
132. (Previously Presented) The composition of claim 101, further comprising an additional cytokine.
133. (Previously Presented) The composition of claim 101, wherein the ex vivo expanded cytotoxic lymphocytes are not stably transfected with a nucleic acid molecule encoding a cytokine.
134. (Previously Presented) The composition of claim 101, wherein the ex vivo expanded cytotoxic lymphocytes are frozen.
135. (Previously Presented) The composition of claim 134, packed within a shipping package.
136. (Previously Presented) The composition of claim 101, wherein the cytotoxic lymphocytes are ex vivo expanded in the absence of tumor or vasculature associated antigen.
137. (Previously Presented) The composition of claim 101, comprising a number of cells effective to treat a cancer in a patient.
138. (Previously Presented) The composition of claim 137, comprising greater than about  $10^4$  cells.
139. (Previously Presented) The composition of claim 137, comprising greater than about  $10^8$  cells.
140. (Previously Presented) The composition of claim 101, wherein the composition is suitable for human use in quantities of at least about  $10^4$  cells per dose.
141. (Previously Presented) The composition of claim 140, wherein the composition is suitable for use in humans in quantities of at least about  $10^8$  cells per dose.
- 142-172. (Canceled)
173. **(New)** The composition of claim 101, wherein said specific lysis of cancer cells exceeds that of standard flask-grown cells by at least about 10%, as measured in a  $^{51}\text{Cr}$ -release assay wherein said population is added to said cancer cells at a ratio of 10:1.
174. **(New)** The composition of claim 101, wherein said specific lysis of cancer cells exceeds that of standard flask-grown cells by at least about 35%, as measured in a  $^{51}\text{Cr}$ -release assay wherein said population is added to said cancer cells at a ratio of 10:1.
175. **(New)** The composition of claim 140, wherein the composition is suitable for use in humans in quantities of at least about  $10^{10}$  cells per dose.